

QUALITY OF LIFE CONCERNS IN ANIMAL SHELTERS – PART 1: WHY IS IT IMPORTANT AND HOW DO WE MEASURE IT?

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WHY IS QUALITY OF LIFE IMPORTANT?

Ask a typical pet owner why their animal's quality of life is important and you'll likely observe a long pause accompanied by a puzzled look. Not because the question itself is puzzling—it's because the question has an answer so glaringly self-evident that it is incredibly difficult to even put it into words. It would be like asking someone "Why do you love your child?" In fact, if this talk were entitled "Why is quality of life important?" it would attract a *very* small audience. Almost everyone would simply say, "Geez, I already know the answer to *that*. Why waste an hour of CE time that I could be use to learn something I *don't* know?"

Defining quality of life (QOL) faces a similar situation. Everyone knows what QOL is. So why, then, has it been so difficult for scientists to define? Quality of life is an enormously broad and complex concept. The potential benefits of QOL assessments are well accepted, yet there is no consensus concerning its definition or the factors that affect it. Like "happiness," there is an intuitive sense of what QOL is, but because it involves the mental states of animals, including emotions, feelings, and thoughts, it defies easy description. This is in distinct contrast to physical well-being, which lends itself to rather specific description.

In the course of the investigation of QOL (as well as welfare and well-being) in humans and nonhuman animals, several conclusions have received broad agreement among scientists.

- QOL is, first and foremost, a matter of feelings. Pleasant and unpleasant feelings both contribute to QOL; hence, QOL involves the presence of positive feelings and experiences and not simply the absence of unpleasant feelings (suffering).
- Positive (good) QOL coincides with a preponderance of pleasant feelings, and negative (poor) QOL coincides with a preponderance of unpleasant feelings.
- QOL is considered strictly a view from within; it is not an external evaluation of how others judge another's life, but how that individual feels about the circumstances and events making up his or her own life and what they mean to that person and that individual alone.
- QOL, like happiness, exists along a continuum, ranging from very good to very poor.

The concept of QOL is closely related, and may be equivalent, to other concepts such as happiness,

welfare, well-being (sometimes specified as subjective, emotional, psychological, or mental well-being), and life satisfaction. Scientists and nonscientists alike often use many of these term interchangeably.

QOL in humans refers to how an individual feels about how his or her life is faring. Scientific descriptions of QOL can ultimately be reduced to a very simplified concept: the individual *feels good*. This means that there are few, or brief, unpleasant feelings, and a predominant state of comfort. In addition, there are pleasant feelings that make the animal feel good. The general concept of feeling good applies to present moment experiences ("I feel good right now") as well as feeling good about life in general ("Life is going well"). QOL may be regarded as one's overall enjoyment of life.

WHY IS IT IMPORTANT?

Emotional Pain

The most important aspect of QOL is the unpleasant feeling states. Because they are protective against threats and critical to survival, unpleasant feelings command more attention, priority, and urgency than the pleasant feelings of life. This is done by causing a *hurting* sensation. As a consequence it appears that unpleasant feelings have been constructed to contribute disproportionately more to one's subjective life experiences than pleasant feelings. Feelings have both physical and emotional origins. The unpleasant physical-based feelings—pain, respiratory distress, nausea, pruritus, temperature extremes, thirst, hunger, full urinary bladder, bloatedness, extremely bright lights, and the like—are well known to everyone as having an adverse effect on one's enjoyment of life. The relatively recent laser-like focus on physical pain has essentially ignored other types of pain, specifically emotional pains.

Emotional pain comprises all unpleasant, or negative, emotional states. Specific unpleasant emotional states are commonly referred to nonspecifically as *stress* (also *emotional stress*) and *distress*. Emotions comprising this category for which substantial evidence exists in animals include fear and phobias, anxiety, separation anxiety, loneliness, boredom, frustration, anger, helplessness, grief, and depression.

Can physical and emotional pain be compared? Contrary to the prevailing view, there is evidence that emotional pain may induce greater suffering than physical pain. Both physical and psychological factors will elicit a physiologic stress response through the hypophyseal-pituitary axis (HPA), but of the two, psychological factors have been demonstrated to be the most potent stimuli for HPA activation.³ In one study an electrified grid was placed between puppies and persons to whom they had formed a social attachment. The puppies crossed the grid, receiving shocks the entire way, to reestablish contact with the person. In another study, infant rats were taken from their mothers and placed on the opposite side of an electrified grid. The mother rats could hear their pups' distress vocalizations, but to reach them would have to walk across the active grid. The mother rats crossed the grid, picked up the

pups, and carried them back across the grid to their nest, receiving constant electric shocks in both directions. It appears that animals will choose to relieve emotional pain at the expense of experiencing the physical pain.

This is the key reason why QOL is of such immense importance in shelter animals: A major part of QOL is emotional pain, and emotional pain has the potential for intense suffering—of greater intensity than physical pain.

Three major contributing factors to QOL in the animal shelter environment that are associated with negative emotions include fear, social relationships, and mental stimulation. Fear, considered to be the evolutionarily oldest emotion due to its critical protective function, is capable of causing extreme suffering when it persists. Positive social interactions elicit pleasant emotions whereas separation and isolation elicit unpleasant emotions (eg, isolation distress, loneliness). Many researchers now believe that for social animals being deprived of social companionship elicits an extremely distressful emotional state. It has been suggested that for some social species such as dogs, nonhuman primates, and rodents, social companionship is the most important element in achieving well-being. It has been proposed by some that shelter animals that once were pets may experience greater suffering from social deprivation than free-roaming animals when placed in a shelter. Mental stimulation appears to be necessary for maintaining mental health comparable to the way food is necessary for maintaining physical health. When monotonous, unchanging, and unchallenging environments provide insufficient mental stimulation, animals show the signs of boredom. Studies in the behavior and physiology of animals suggest that boredom acts similarly through unpleasant feelings in human and many nonhuman species, often manifesting as abnormal behavior patterns (eg, stereotypes and depression). And contrary to how boredom is often viewed—as a lightweight, mildly irritating emotion—boredom has the potential to be a severely punishing feeling. In addition, studies show that mental stimulation is very rewarding to animals, appearing to elicit highly pleasurable feelings. Stimulation can be in the form of play, exploration, and many other forms of mental engagement and challenges.

“Stress” is commonly used as a catch-all term when what is really involved is a specific unpleasant emotional experience, such as fear, anxiety, pain, loneliness, frustration, boredom, or anger. The relationship between stressful events and QOL is not a simple inverse relationship. Much evidence supports the contention that some degree of stress is necessary and beneficial to animal well-being and that too little stress can be unpleasant to the animal and detrimental to well-being. The most important aspect of stress as it pertains to QOL appears to be the animal’s ability to respond to demands of its environment, that is, to cope effectively with stressors. The ability to cope, rather than the amount of stress encountered, appears to be the factor

most correlated with the impact of stress on emotional well-being.

A large body of research in animals and humans has demonstrated that a sense of control over one’s life and circumstances, especially the unpleasant feelings and events, is one of the most reliable predictors of positive feelings of well-being and health. As it is used in animals, control is the perceived ability to influence one’s environment or one’s relationship with the environment, that is, to affect outcomes. Control permits the animal to influence the psychological impact of stimuli by giving the animal the ability to increase the intensity of pleasant feeling states and decrease the intensity of unpleasant states. For animals a sense of control over adverse conditions, specifically the ability to minimize the intensity and distress potential of unpleasant feelings appears to be one of the most critical components of mental well-being. In people and presumably in animals, the perception of control, even if the perceived control is not utilized, provides positive expectations about one’s circumstances and creates a sense of hope that unpleasant life events will not endure. Animals deprived of any control over their own circumstances, especially under persistent or repetitive aversive conditions, may develop severe emotional distress in the form of helplessness and hopelessness. Helplessness in animals is a debilitating emotional state that has been equated to, and is used as a model for, clinical depression in humans. Many situations of animal care—such as many shelter environments—are structured in a way that nothing in the animal’s environment is within the animal’s power to change.

The Health Effects

The protective function of the stress response—energy mobilization, suppression of noncritical bodily functions, mental arousal and vigilance—is adaptive in the short run but not suited for and very costly in the long run. In an animal’s natural environment, threats rarely persist for more than a few minutes, which would appear to be the most likely reason that stress mechanisms have evolved to be beneficial only for the short term. When the stress response remains activated for prolonged periods—in situations rarely occurring in the natural environment, such as confinement, deficient stimulation, and chronic or extreme overcrowding—the harm becomes manifest in the form of somatic and mental pathology.

Today, an extensive body of literature reveals the influence of emotional states on the course and outcome of physical illnesses in human and nonhuman animals. In laboratory studies, anxiety and fear have been linked to immunosuppression in mice, atherosclerosis in cynomolgus monkeys, lower urinary tract disease in cats, hypertension in mice, gastrointestinal disease in rats, and fatal acute thyrotoxicosis and digitalis toxicity in rabbits. Experimentally, associations have been demonstrated between social separation and immunosuppression in nonhuman primates; isolation and tumor growth in mice and rats; deficient

environmental stimulation and impaired health and susceptibility to disease in nonhuman primates; and anger and myocardial ischemia in dogs.

In the animal shelter environment, stress appears to play a substantial role in many disease states, specifically, parvovirus and *Bordetella* infections in dogs, gastrointestinal disorders in many species, and upper respiratory infections, feline interstitial cystitis, and asthma in cats.

In the face of chronic stress, virtually no aspect of the animal organism escapes harm, including a wide array of disorders of the immunologic, hemolymphatic, gastrointestinal, cardiovascular, musculoskeletal, nervous, urinary, and reproductive systems.

Adoptability

Several studies as well as anecdotal observations have demonstrated that the behavior of the animal in the

shelter plays a strong influential role in the adoptability of the animal. Spending more time in the front of his/her enclosure increases the likelihood of adoption. One study showed that lengthy periods of time spent in a shelter environment may encourage dogs to behave in a manner that is generally considered unattractive by potential adopters, such as staying at the back of the enclosure.

In this way, the animal's QOL in the shelter influences the chances s/he will be adopted. Emotions such as helplessness, depression, and fear will manifest outwardly as behaviors that are less desirable to prospective adopters. In a tragic downward spiral, the emotional pain makes the animal less likely to be delivered *from* the emotional pain. So the *more* the animal hurts, the *longer* he hurts.